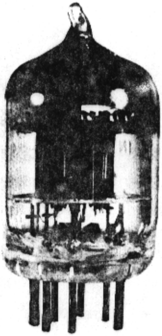


DOUBLE TRIODE
MINIATURE

Western Electric

DESCRIPTION

The 407A is a 9-pin miniature double triode having separate indirectly heated cathodes. It is designed for use in amplifier, mixer, oscillator, multivibrator and clamp circuits. The useful frequency range extends through the VHF range.

CHARACTERISTICS

		Parallel		Series	
Heater Voltage		20	or	40	volts
Plate Current per Section	$E_b = 150$ volts;			8.2	milliamperes
Transconductance per Section	$E_c = -2.0$ volts			5500	micromhos

GENERAL CHARACTERISTICS

ELECTRICAL DATA

	Parallel	Series
Heater Voltage, A-C or D-C	20	40 volts
Heater Current	100	50 milliamperes
Direct Interelectrode Capacitances	without external shield	with external shield (RMA #315)
Grid-to-Plate per Section	1.3	*1.3 uuf
Input per Section	2.2	*2.3 uuf
Output per Section	1.0	*1.3 uuf
Plate-to-Plate	0.04	**0.03 uuf
Plate-to-Plate (maximum)	0.11	**0.10 uuf

MECHANICAL DATA

Cathode	Coated unipotential
Bulb	T-6½
Base	Small button, 9-pin
Mounting Position	Any

Dimensions and pin connections shown in outline drawing on Page 4.

MAXIMUM RATINGS, Design-Center Values

Values are for each section

Plate Voltage	300 volts
Plate Dissipation	1.5 watts
Plate Current	18 milliamperes
Heater-Cathode Voltage	75 volts

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS — CLASS A_1 AMPLIFIER

Values are for each section

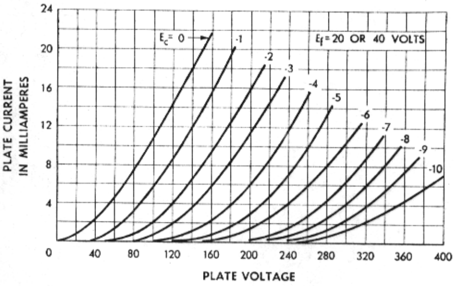
Plate Voltage	150	150 volts
Grid Voltage	−2.0	... volts
Cathode Resistor	...	240 ohms
Plate Current	8.2	8.2 milliamperes
Transconductance	5500	5500 micromhos
Amplification Factor	35	35
Grid Voltage (Approximate) for Plate Current of 10 microamperes	−8	... volts

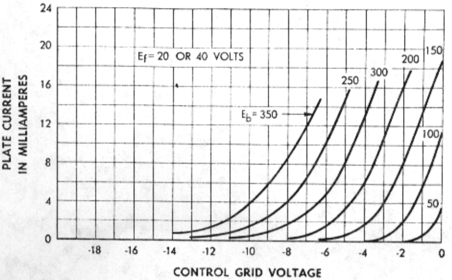
*Pin 5 and external shield (RMA #315) connected to cathode pin of section under test. Elements of other section grounded.

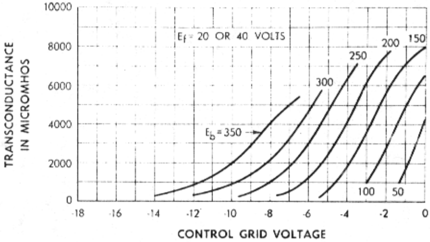
**Pin 5 and external shield (RMA #315) connected to ground with other elements.

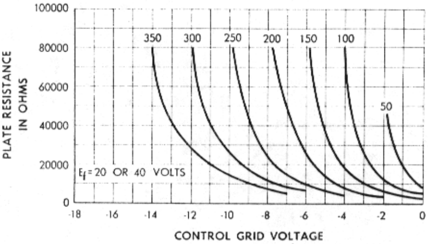
TYPICAL OPERATING CONDITIONS — CLASS AB_1 AMPLIFIER

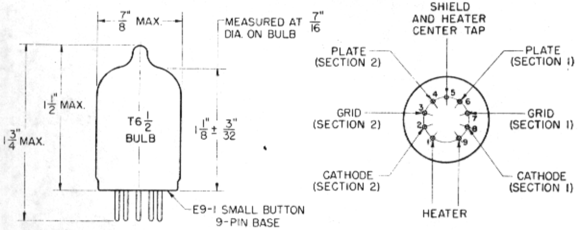
Plate Voltage	200	300	volts
Cathode Resistor (Cathodes Tied Together)	400	800	ohms
Peak A-F Grid-to-Grid Voltage	9.0	20	volts
Zero Signal Plate Current per Section	5.0	4.7	milliamperes
Maximum Signal Plate Current per Section	5.6	6.0	milliamperes
Load Impedance, Plate-to-Plate	30000	40000	ohms
Signal Power Output	0.40	0.95	watt
Total Harmonic Distortion Less Than	5	10	per cent











Western Electric

A development of Bell Telephone Laboratories, the research laboratories of the American Telephone and Telegraph Company and the Western Electric Company.